

WHAT IS CLAIMED IS:

1. A printer comprising:

at least one light source for generating light;

a spatial light modulator, disposed in a traveling path  
5 of said light, including plural micromirrors arranged in at  
least one array, and individually shiftable between first and  
second positions different in a direction;

a pick-up section, disposed in a traveling path of said  
light reflected by said plural micromirrors in said first  
10 position, for picking up a picture image in photo film  
illuminated by said light, to output image data;

a printing projecting optical system, disposed in a  
traveling path of said light reflected by said plural  
micromirrors in said second position, for focusing and  
15 recording a print image to photosensitive material;

a controller for control in a pick-up mode and a  
printing mode;

wherein when in said pick-up mode, said controller sets  
said plural micromirrors in said first position, to  
20 illuminate said picture image in said photo film, and  
operates said pick-up section to obtain said image data;

when in said printing mode, said controller selectively  
sets said plural micromirrors in said second position  
according to said image data, for recording of said print  
25 image with said printing projecting optical system.

2. A printer as defined in claim 1, further comprising  
a pick-up optical system for focusing said light on said  
pick-up section upon being passed through said picture image  
in said photo film.

30 3. A printer as defined in claim 2, wherein said pick-  
up section includes an image area sensor, said at least one



of said light, including plural micromirrors arranged in a matrix form, and individually shiftable between first and second positions different in a direction;

an externally observable indicator screen;

5 an indicating projecting optical system, disposed in a traveling path of said light reflected by said plural micromirrors in said first position, for projecting an image to said indicator screen;

10 a printing projecting optical system, disposed in a traveling path of said light reflected by said plural micromirrors in said second position, for focusing and recording an image to photosensitive material;

a controller for control in a simulating mode and a printing mode;

15 wherein when in said simulating mode, said controller selectively sets said plural micromirrors in said first position according to image data, for indication of a simulated image according to said image data with said indicating projecting optical system;

20 when in said printing mode, said controller selectively sets said plural micromirrors in said second position according to said image data, for recording of a print image according to said image data with said printing projecting optical system.

25 10. A printer as defined in claim 9, wherein said controller controls said at least one light source in different conditions between said simulating mode and said printing mode.

30 11. A printer as defined in claim 10, wherein said indicator screen includes a screen plate through which at least part of light incident thereon is transmissible, and



